REMARKS

Claims 1-15 and 24-26 are present in this application, and claims 1-2, 5-15 and 24-26 stand rejected under 35 USC 102(b) as anticipated by Blackwell et al., U.S. Patent No. 5,288,541.

This rejection is traversed. More specifically, this rejection is traversed on the grounds that (a) as to claims 1, 2 and 5-9, Blackwell does not describe a backplane in which an insulating polymeric material separates thin film electronic devices from a patterned metal film; (b) as to claims 10 and 11, Blackwell does not describe a backplane in which an insulating polymeric material separates thin film electronic devices from a patterned metal film, and does not describe any electro-optic display; (c) as to claims 12-15, Blackwell does not describe a backplane in which a plurality of thin film electronic devices are connected *to a patterned metal foil* by a via passing through a polymeric layer; and (d), as to claims 24-26, Blackwell does not describe any electro-optic display, much less any such display in which an electro-optic material is confined to a central portion of the display.

With regard to point (a), present claims 1, 2 and 5-9 are directed to a backplane for use in an electro-optic display, the backplane comprising a patterned metal foil having a plurality of apertures extending therethrough, coated on at least one side with an insulating polymeric material and having a plurality of thin film electronic devices provided on the insulating polymeric material so that the insulating polymeric material separates the electronic devices from the patterned metal foil. The Office Action analyses Figure 1(d) of Blackwell arguing that this structure has all the features of present claim 1 including the electronic devices, the devices being described at column 3, lines 46-58 of Blackwell. With respect, this analysis is wrong; both commonsense and a detailed reading of Blackwell show that the structure shown in Figure 1(d) does not have electronic devices mounted thereon, and that the electronic devices are only mounted on the very different structures shown in Figures 1(e) and 1(f) to produce the final structure shown in Figure 1(g).

Blackwell describes a thin film semiconductor chip carrier (see the Abstract). As the Examiner is no doubt aware, such chip carriers require that provision be made for separate electrical contact with multiple pins provided on the chips themselves. The structure shown in Figure 1(d) essentially comprises a base polymeric film 10, formed for example of polyimide (see column 6, line 65) having holes 50 (see column 7, lines 51-55) formed therethrough. Both major surfaces of the polymeric film 10, and the cylindrical surfaces defining the holes 50, are covered with a composite conductive film comprising a base layer (20, 230) of chromium (see column 7, line 26 and column 9, lines 67-68) overlain with a thicker layer of copper (25, 240) (see column 7, line 27 and column 9, line 68 to column 10, line 3). In other words, the entire exposed surface of the film shown in Figure 1(d), including the internal surfaces of the holes, is conductive. No engineer would mount a chip on such a structure because the continuous conductive film covering its surface would short all pins of the chip. Furthermore, Blackwell does not teach such a futile chip mounting. As stated in the paragraph at column 10, lines 15-24, Blackwell teaches that after formation of the structure shown in Figure 1(d), the conductive films on both major surfaces of the film are photolithographically patterned to remove most of the conductive film leaving the structure shown in Figure 1(e) or 1(f) with several discrete circuit lines 270, with or without lands 260. One or more chips 280 is then mounted on the final chip carrier *with contact pads on the chip 280 electrically connected to the circuit lines 270* thus producing the final structure of Figure 1(g) (see column 10, lines 44-49).

The structures of Blackwell's Figures 1(d), 1(e) and 1(f) do not anticipate any of claims 1, 2 and 5-9 because they do not include any thin film electronic devices. Furthermore, in the case of the structures of Figures 1(e) and 1(f) (and this applies also to the structure of Figure 1(g)), the structures can hardly be said to comprise a "patterned metal foil" as required by claims 1, 2 and 5-9; "patterned metal foil" implies at least some element of continuity, not a series of separate conductors as in these structures. The structure of Blackwell's Figure 1(g) does not anticipate any of claims 1, 2 and 5-9

because the insulating polymeric material does not separate the thin film electronic devices from the patterned metal foil; as noted above, column 10, lines 44-49 of Blackwell explicitly states that contact pads on the chip 280 contact the circuit lines 270, as indeed they must if the film is to act as a chip carrier.

It is stressed that these differences between the Blackwell structures and the backplane of the present invention are not mere matters of design choice but represent fundamental differences based upon the wholly different purpose of the two devices. The present invention is a backplane for an electro-optic display which uses a patterned metal foil as a light weight support structure with good dimensional stability and structural integrity. The insulating polymeric covering serves to isolate thin film electronic devices needed for the proper functioning of the backplane from the patterned metal film. The final Blackwell structure is a chip carrier in which the polymeric film is the essential structural unit of the carrier and the discrete conductive paths serve to provide the necessary electrical contacts to a chip mounted on the carrier.

With regard to point (b), present claims 10 and 11 are directed to electro-optic displays comprising a backplane according to claim 1. Hence they are not anticipated by Blackwell for the same reasons as claim 1, as discussed above. Furthermore, the term "electro-optic" is defined in detail in Paragraph [0003] of the specification as referring to a material having first and second display states differing in at least one optical property, the material being changed from its first to its second display state by application of an electric field to the material. Blackwell describes no such material; the only thing mounted on the Blackwell chip carrier film is a chip such as that shown at 280 in Blackwell's Figure 1(g).

With regard to point (c), present claims 12-15 require a backplane for use in an electro-optic display, the backplane comprising a metal foil coated on at least one side with an insulating polymeric material and having a plurality of thin film electronic devices provided on the polymeric material, the backplane further comprising at least one conductive via extending through the polymeric material and electrically connecting at

least one of the electronic devices to the metal foil. While the chip 280 in Blackwell's Figure 1(g) may be a thin film electronic device and the metal film lining the holes 50 may be considered a conductive via, this via does not connect the thin film electronic device to a patterned metal foil, as required by present claims 12-15. As noted above, in the structure of Figure 1(g) there are no metal foils on the major surfaces of the polymeric film 50, only small discrete portions remaining after patterning of the original continuous metal foil and forming conductors 270 and optionally lands 260. *A fortiori*, Blackwell does not describe any structure in which a metal foil acts as any of the integers enumerated in claim 13.

With regard to point (d), present claims 24-26 require an electro-optic display having a central portion comprising an electro-optic material. As discussed above, Blackwell does not describe any electro-optic material, and hence cannot anticipate any of present claims 24-26

For the foregoing reasons, the 35 USC 102 rejections set out in the aforementioned Office Action are unjustified and should be withdrawn. Reconsideration and allowance of all claims remaining in this application is respectfully requested.

Since the normal period for responding to the Office Action expired September 21, a Petition for a one month extension of this period is filed herewith.

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